Report Information
from Dialog DataStar

THOMSON

DIALOG

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Enhancing face recognition with location information.

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Abstract
> Knowing the location of different sensed user tokens such as a Bluetooth–enabled mobile phone or RFID
> **badge** helps to verify the identity of the user. Co–location of the tokens increases the confidence that the
> user is at a certain location whereas conflicting locations decreases this confidence. Thus location
> information can be used to authenticate the user. Instead of sensing user tokens viawireless
> communication channels, **face** detection and **recognition** can be used as well. The location of the
> webcam detecting the user can be fused with location information obtained from other user identity
> tokens. Together with the **face recognition** output, the fused location information of the sensed identity
> tokens results in an enhancement of the user identification process. This approach proves very accurate
> in terms of a reduction of the FAR and FRR of the **face recognition,** allows for more relaxed posing of
> the user for reasonably correct **face recognition,** and provides user– friendliness as users don't have to
> explicitly enter credentials anymore in order to authenticate themselves. The latter aspect makes the
> approach suitable for pervasive and ubiquitous computing environments.

Descriptors
> BIOMETRICS–ACCESS–CONTROL; **FACE**–RECOGNITION; IMAGE–FUSION; MESSAGE–
> AUTHENTICATION; UBIQUITOUS–COMPUTING.

Classification codes
> B6135E **Image–**recognition*;
> C5260B Computer–vision–and–image–processing–techniques*;
> C6130S Data–security;
> C5260A Sensor–fusion;
> C6150N Distributed–systems–software.

Keywords
> **face–**recognition; location–information; Bluetooth–enabled–mobile–
> phone; RFID; user–identity–verification; user–authentication;
> wireless–communication–channel; **face**–detection; image–enhancement;
> user–friendliness; pervasive–computing; ubiquitous–computing; image–
> fusion.

Treatment codes
> P Practical.

Language
> English.

Publication type
> Conference–paper.

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Search Strategy

No.	Database	Search term	Info added since	Results
1	INZZ	(face OR facial) ADJ (recogni$4 OR segment$5)	unrestricted	10822
2	INZZ	barcode$1 OR bar ADJ code$1 OR bar–code$1	unrestricted	2944
3	INZZ	security	unrestricted	132013
4	INZZ	badge OR badges OR tag OR tags	unrestricted	9258
5	INZZ	1 AND 4	unrestricted	12

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